

CLIPPEDIMAGE= JP406202177A

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TITLE: ORGANIC NONLINEAR OPTICAL MATERIAL AND WAVELENGTH
CONVERTER ELEMENT
USING THIS MATERIAL

PUBN-DATE: July 22, 1994

INVENTOR-INFORMATION:

NAME

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ASSIGNEE-INFORMATION:

NAME

HOYA CORP

COUNTRY

N/A

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INT-CL (IPC): G02F001/35

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ABSTRACT:

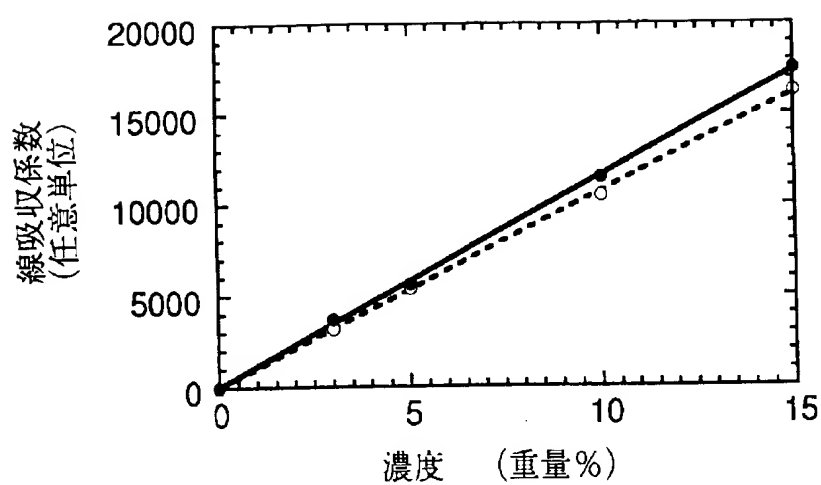
PURPOSE: To make relaxation with time of nonlinear activity after an electrific field orientation small and to maintain high nonlinear activity for a long time by dispersing a specified org. compd. in a polysulfone.

CONSTITUTION: Polysulfone and nonlinear acitive guest molecules such as paranitroaniline and 2-methyl-4-nitroaniline are dissolved in an org. solvent to prepare a soln. This soln. is applied on a substrate by spin coating method to form a thin film. This sample is fixed between a pair of electrode consisting of one acicular electrode and other planer electrode. A high electric field is impressed between these electrodes at a temp. near the glass transition temp. of the polymer material containing the guest molecules, and

gradually cooled to room temp. and then the electric field is removed. By this method, nonlinear active molecules in the polymer are oriented in the direction of the electric field to give nonlinear optical effect. The obtd. org. nonlinear optical material shows little relaxation of the orientation of guest molecules since polysulfone has small free volume to suppress movement of guest molecules.

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【図1】



【図2】

